



# भारत का राजपत्र The Gazette of India

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No. 25]

NEW DELHI, SATURDAY, JUNE 23, 1973 (ASADHA 2, 1895)

इस भाग में जिस पृष्ठ संख्या दी जाती है जिससे कि यह कलम संकलन के रूप में रखा जा सके  
(Separate paging is given to this Part in order that it may be filed as a separate compilation)

## भाग III—खण्ड 2

## PART III—SECTION 2

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बंधित अधिसूचनाएं और नोटिस

Notifications and Notices issued by the Patent Office relating to Patents and Designs

### THE PATENT OFFICE

#### Patents and Designs

The dates shown in crescent brackets are the dates claimed under Section 135 of the Act.

#### Application for Patents Filed at the Head Office

2nd June 1973

1293/Cal/73. The Viscose Development Company Limited. Improvements in and relating to ion exchange processes. (2nd June 1972).

1294/Cal/73. Murco Environmental Limited. A refuse collector body. (2nd June 1972).

1295/Cal/73. M. M. H. I. Fernando. Parboiling and drying of paddy simultaneously by using heat generated by burning paddy husk. (3rd June 1972).

1296/Cal/73. N. V. Philips Gloeilampenfabrieken. Method of manufacturing a tubular lamp envelope.

1297/Cal/73. Sealed Power Corporation. Improvements in the manufacture of spacerexpanders. (11th May 1971). [Divisional date 23rd July 1971].

1298/Cal/73. Sealed Power Corporation. Improvements in the manufacture of spacerexpanders. (11th May 1971). [Divisional date 23rd July 1971].

1299/Cal/73. Sealed Power Corporation. Improvements in the manufacture of spacerexpanders. (11th May 1971). [Divisional date 23rd July 1971].

1300/Cal/73. Sealed Power Corporation. Improvements in the manufacture of spacerexpanders. (11th May 1971). [Divisional date 23rd July 1971].

1301/Cal/73. Oesterreichisch-Amerikanische Magnesit AG. Method for the production of sintered magnesite.

1302/Cal/73. La calhene. Improvement to gas-tight enclosures used for treating sick persons or operating on patients.

1303/Cal/73. Indian Council of Agricultural Research. Deodorisation and preservation of toddy.

4th June 1973

1304/Cal/73. Sm. Uma Bhattacharjee. Shock absorber.

1305/Cal/73. Compagnie des Freins et Signaux Westinghouse. Device for controlling the filling of self lapping valve.

1306/Cal/73. Compagnie Des Freins Et Signaux Westinghouse. Device for controlling the filling of reservoirs.

1307/Cal/73. Rhone-Poulenc S. A. Artificial haemodialysis kidneys. [Addition to No. 2071/72].

1308/Cal/73. Balmer Lawrie & Co., Ltd. Rotary tea drying machine.

1309/Cal/73. R. E. Templeton. Tricycle drive train.

1310/Cal/73. Scandia Packaging Machinery Company. A stationary tucking and folding mechanism. [Divisional date 17th June 1971].

1311/Cal/73. S.F.A. -Societa' Di Fisica Applicata S.r.l., An Automatic used banknotes selecting machine.

5th June 1973

1312/Cal/73. Nauchno-Issledovatel'sky Konstruktorsko-Tekhnologicheskoy Institut Shinnoy Promyshlennosti. Device for fitting bead ring onto drum.

- 1313/Cal/73. Coulter Information Systems, Inc. Method and apparatus for recording images on electro-photographic film.
- 1314/Cal/73. Coulter Information Systems, Inc. Electro-photographic film and method of making same.
- 1315/Cal/73. Deutsche Rhodiacheta A. G. Improvements in and relating to cigarette filters.
- 1316/Cal/73. Orenstein & Koppel Aktiengesellschaft. Supporting body for a non-compartmented bucket wheel.
- 1317/Cal/73. M. Inoue, M. Ishikawa, T. Tsuchiya and T. Shimamoto. Process for producing 2-hydroxymethyl-3-phenyl-4(3H)-quinazolinone.
- 1318/Cal/73. Magyar Aluminiumpari Troszt. Method for the treatment of red mud.
- 1319/Cal/73. Mitsui Toatsu Chemicals, Incorporated and Mitsui Pharmaceuticals, Incorporated. Process for the preparation of (+)-2, 2'-(ethylenediimino-di-1-butanol and its salts.
- 1320/Cal/73. The Metal Box Company Limited. Improvements in cans. (9th June 1972).

6th June 1973

- 1321/Cal/73. A. K. Ahluwalia. Improved syphon.
- 1322/Cal/73. A. K. Ahluwalia. Barometric vacume chamber and pipe assembly for conveying water to higher level.
- 1323/Cal/73. Bayer Aktiengesellschaft. A process for the production of 1-nitroanthraquinone.
- 1324/Cal/73. Shell Internationale Research Maatschappij B. V. Process for the separation of soot particles from an aqueous slurry.
- 1325/Cal/73. The Lucas Electrical Company Limited. Electromagnetic pick-ups. (10th June 1972).
- 1326/Cal/73. Jeumont-Schneider. Positive information movement detector.
- 1327/Cal/73. Saint-Bobain Industries. Glass sheet assembly.
- 1328/Cal/73. Océ-Van Der Grinten N. V. Electrophotographic process for the formation of visible images.
- 1329/Cal/73. Standard Brands Incorporated. Process for isomerising glucose to fructose.
- 1330/Cal/73. Aristovoulos George Petzetakis. Large bore pipe made from thermoplastic synthetic material, particularly for use underground, and process and apparatus for manufacturing such a pipe.

7th June 1973

- 1331/Cal/73. Industrie Pirelli Societa per Azioni. A fully filled electric cable.
- 1332/Cal/73. The Lucas Electrical Company Limited. Horns. (10th June 1972).
- 1333/Cal/73. Canadian Industries Limited. Separation of solids. (12th June 1972).
- 1334/Cal/73. The Carborundum Company. Filter element.
- 1335/Cal/73. The Carborundum Company. Water purification means.
- 1336/Cal/73. The Carborundum Company. Removal of virus from fluids.
- 1337/Cal/73. Vyzkumny Ustav Bavlnarsky. Weft insert-er for travelling wave shedding looms.

- 1338/Cal/73. Vyzkumny Ustav Bavlnarsky. Weft thread for travelling/wave shedding looms.
- 1339/Cal/73. Vyzkumny Ustav Bavlnarsky. A method of stabilizing the fabric within the weft beat-up area in multiple-shed weaving machines and a device for performing the method.
- 1340/Cal/73. Vyzkumny Ustav Bavlnarsky. Apparatus for directing weft thread into a groove of a rotary reed of weaving looms.
- 1341/Cal/73. W. Hegler. Apparatus for cutting openings into pipes.

8th June 1973

- 1342/Cal/73. SCM Corporation. Spoolless ribbon cart-ridge with lift and feed features combined.
- 1343/Cal/73. SCM Corporation. Spoolless ribbon cart-ridge with lift and feed features combined.
- 1344/Cal/73. The Firestone Tire & Rubber Company. Isomerization of 2-butyne to 1, 2-butadiene.
- 1345/Cal/73. J. M. Gouget. Container with unstoppering system and means for its manufacture.
- 1346/Cal/73. Wiggins Teape Research & Development Limited. Non-planer non-woven fibrous articles. (8th June 1972). [Addition to No. 158/Cal/73].
- 1347/Cal/73. Snam Progetti S.p.A. Olefin tetrapolymer and process for the preparation thereof.
- 1348/Cal/73. S-L-Liou Section-disengaging adhesive tape.
- 1349/Cal/73. Licencia Talalmanyokat Ertekesito Vallalat. Process for the preparation of building units.
- 1350/Cal/73. Tavkozlesi Kutato Intezet. High-transduc-tance wideband phase discriminator.
- 1351/Cal/73. Societe Fives Lille-Cail. Continuous cry-ing method for a material in particle form, more particularly crystallised sugar, by means of a centrifuge, and drier for carrying out the said method.
- 1352/Cal/73. Dr. S. P. Khee. Improvements in or re-lating to half-boiled egg openers.
- 1353/Cal/73. American Cyanamid Company. S-( $\alpha$ -substituted-arylmethylthio,-aryl-methylsulfinyl and -arylmethylsulfonyl)-methyl phosphorus esters.
- 1354/Cal/73. Arun K. Chatterji. Electrostatic imaging system.
- 1355/Cal/73. Wavin B. V. A device for manufacturing fibre reinforced plastic pipes.

## Application for Patents Filed at Patent Office (Bombay Branch)

11th May 1973

- 169/Bom/73. V. H. Patel. A device to control motor operated striking mechanism in clocks.
- 170/Bom/73. V. H. Patel. Improvement in or relating to "DING-DONG" striking in clocks.
- 171/Bom/73. H. S. Mandani. Rubber hardness testing machine.
- 172/Bom/73. K. R. Gajria. Non-Pollution engine de-vice.

14th May 1973

- 173/Bom/73. P. A. P. Jamas. Improvements in or relating to loud-speakers.
- 174/Bom/73. P. A. P. James. Improvements in or relating to transducers.
- 175/Bom/73. M. D. Sadarangani. A combined outside-inside calliper with scale.

16th May 1973

- 176/Bom/73. Permal Wall Limited. Improvements in or relating to non-metallic insulated cross arm assembly for electrical, power, signals, tele-communication and telegraph overhead transmission lines and method of its manufacture.

22nd May 1973

- 177/Bom/73. Dr. D. G. Takte. Process for the oxidation of mono-olefins catalysed by tin oxide containing trace amount of sulphur [Divisional date 26th March 1971].
- 178/Bom/73. Dr. D. G. Takte. Process for the oxidation of mono-olefins catalysed by tin oxide doped with halogen. [Divisional date 26th March 1971].
- 179/Bom/73. Dr. D. G. Takte. Process for the oxidation of mono-olefins catalysed by indium oxide containing trace amount of sulphur. [Divisional date 26th March 1971].
- 180/Bom/73. Dr. D. G. Takte. Process for the polymerisation of mono-olefins catalysed by gallium oxide doped with halogen. [Divisional date 26th March 1971].
- 181/Bom/73. N. H. Mehta. Improvements in or relating to packaging materials, and method of manufacturing same, and a device for manufacturing such packaging material.

23rd May 1973

- 182/Bom/73. Hindustan Lever Limited. Hair preparations. (26th May 1972).
- 183/Bom/73. V. R. Barve. A hydro-electric burner or stove.

24th May 1973

- 184/Bom/73. N. P. Kinariwala. Process for the manufacture of textile loom shuttles.
- 185/Bom/73. Sunil Kishor Date. Door silencer.

26th May 1973

- 186/Bom/73. Mistry Bros. An improved folding table.

29th May 1973

- 187/Bom/73. H. Patel. A rotary combustion engine.
- 188/Bom/73. H. Patel. A rotary combustion engine.
- 189/Bom/73. H. Patel. A rotary combustion engine.

1st June 1973

- 190/Bom/73. B. S. Patel. Universal closure.
- 191/Bom/73. B. S. Patel. Tamper proof package.
- 192/Bom/73. S. S. Engineer. Improvement in and relating to "Footwear".
- 193/Bom/73. Danloss A/S. Air-inlet means for air-conditioning installations or the like (I).

4th June 1973

- 194/Bom/73. R. C. Mehta. Adjustable tool holder.
- 195/Bom/73. P. G. Bhide. An attachment to petrol engine to use kerosene as fuel.
- 196/Bom/73. G. B. Gelot. Chemically impregnated papers for biological staining procedures.

5th June 1973

- 197/Bom/73. Bhabha Atomic Research Centre, Trombay, Bombay-85. Improved gate valve.
- 198/Bom/73. Vasant Engineering Ltd. Process of making power transmission endless belts, and belts made by such process an power transmission system incorporating same.

#### Application for Patents Filed at Patent Office (Madras Branch)

15th May 1973

- 70/Mas/73. P. J. Paul. Plastic collapsible tube.

16th May 1973

- 71/Mas/73. E. G. Rao. Improvements in or relating to light-weight structures.

22nd May 1973

- 72/Mas/73. Mrs. Ratan Devi Toshniwal. Temperature regulator.

24th May 1973

- 73/Mas/73. L. Sankaran. Transistorised automobile ignition unit.

26th May 1973

- 74/Mas/73. K. K. Varughese. Afastener.

5th June 1973

- 75/Mas/73. R. B. Menon. An improved reflector unit for fluorescent lamps.
- 76/Mas/73. O. G. Rajulu. Process on rodent control.
- 77/Mas/73. W. S. Insulators of India Ltd. A monitoring device. [Divisional date 2nd January 1973].

#### Alteration of Date

132764. Post-dated to 6th June 1972.
134526. Ante-dated to 19th April 1971.
134527. Ante-dated to 19th April 1971.
134528. Ante-dated to 19th April 1971.

#### Complete Specifications Accepted

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A limited number of printed copies of the specifications listed below will be available for sale from the Government of India Book Depot, 8, Kiran Sankar Roy Road, Calcutta, in due course. The price of each specification is Rs. 2 (postage extra if sent out of India). Requisition for the supply of the printed specifications should be accompanied by the number of the specifications as shown in the following list.

Typed or photo copies of the specifications together with photo copies of the drawings, if any, can be supplied by the Patent Office, Calcutta on payment of the prescribed copying charges which may be ascertained on application to that office.

CLASS 32-F-1, 32-F-2(b).

114083.

NEW SYNTHESIS OF 2-(2-ARYLVINYL)-1, 4, 5, 6-TETRAHYDROPYRIMIDINES AND 2-(2-ARYLVINYL)-2-IMIDAZOLINES.

PFIZER INC., FORMERLY KNOWN AS CHAS. PFIZER & CO., INC., OF 235 EAST 42ND STREET, NEW YORK 17, STATE OF NEW YORK, UNITED STATES OF AMERICA.

Application No. 114083 filed January 17, 1968.

Convention date July 14, 1967 (32493/67) U.K.

Addition to No. 105334.

#### 7 Claims

A process for preparing a compound of the formula shown in Fig. 1A of the accompanying drawings



wherein -A-B- is -CH-CH<sub>2</sub>- or -CH=CH- and wherein Y is selected from the group consisting of those of the formulae shown in Figs. 2 to 7 of the drawings where R<sub>2</sub> is hydrogen, methyl, ethyl, chloro, bromo or fluoro; R<sub>3</sub> is hydrogen or methyl; R<sub>4</sub> is hydrogen or lower alkyl, and R<sub>5</sub> is chloro, bromo, iodo, fluoro or hydroxy; where R<sub>1</sub> is hydrogen or methyl; n is 2 or 3, and the acid addition salts thereof, which comprises (a) reacting an aldehyde of the formula; Y-CHO wherein Y is as defined above with a compound of the formula 1 shown in Fig. 8 wherein R<sub>1</sub> and n are as defined above, at a temperature below about 50°C., to produce a compound of shown in Fig. 1A when -A-B- is OH (b) and, if desired,



then dehydrating the product of step (a) with at least more than a molar equivalent amount of an acid dehydrating agent.

CLASS 32-F-1, 32-F-2(b), 55-E-4, 60-X-2(d). 129288.

PROCESS FOR THE PREPARATION OF ALKYL 1, 1a, 2, 6b-TETRAHYDROCYCLOPROP [b]INDOLE-1-CARBOXYLATES AND ACIDS.

A. H. ROBINS COMPANY, INCORPORATED, OF 1407 CUMMINGS DRIVE RICHMOND, VIRGINIA 23220, UNITED STATES OF AMERICA.

Application No. 129288 filed November 18, 1970.

#### 4 Claims

A process for the preparation of exo and endo 1, 1a, 2, 6b-tetra-hydrocycloprop [b] indole-1-carboxylic acids having the formula shown in Fig. 3 of the drawings, wherein R is selected from the group consisting of acyl and carbamoyl, and wherein the hydrocarbon portion of R is selected from naphthyl, phenyl, lower-alkyl phenyl, lower-alkoxy phenyl, trifluoromethylphenyl and halophenyl, R<sup>1</sup> is selected from the group consisting of hydrogen and methyl, R<sup>2</sup> is selected from the group consisting of lower alkyl, lower alkoxy, trifluoromethyl and halogen of a atomic weight less than eighty, and n is a positive integer from zero to two inclusive, which comprises the steps of: (1) reacting 1-substituted-indoles of the formula II shown in Fig. 1 of the drawings wherein R, R<sup>1</sup>, R<sup>2</sup> and n have the values given hereinabove, with a lower alkyl diazoacetate to produce exo and endo ethyl-1, 1a, 2, 6b-tetrahydrocycloprop [b] indole-1-carboxylates, (2) separating in known manner the mixture of geometric isomers into the respective geometric exo and endo isomers, and (3) hy-

drolyzing in known manner the respective geometric exo and endo esters from step (2) to produce the geometric exo and endo 1, 1a, 2, 6b-tetrahydrocycloprop [b] indole-1-carboxylic acids.

CLASS 139-A.

129637.

A PROCESS FOR THE PRODUCTION OF DE-COLOURISING TYPE ACTIVE CARBON FROM COCONUT SHELL.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-I, INDIA.

Application No. 129637 filed December 17, 1970.

#### 7 Claims—No drawings

An improved process for production of decolourising type active carbon from coconut shell dust comprising the steps of preparing briquettes from the dust, rapidly carbonising the dried briquettes out of contact with air to high temperature in static bed and thereafter subjecting the carbonized briquettes to further activation in static bed by means of an oxidising gas at an elevated temperature for specified length of time which process is characterised in that the briquettes are prepared from the coconut shell dust of particle size below 16 B. S. mesh by using a known binder and under low pressure not more than 5 lb/ sq. inch and there after drying the briquettes, subjecting the dried briquettes to rapid carbonizing by heating to a temperature of about 800°C and thereafter activating the carbonized char also in static bed by means of a preheated oxidising gas at a temperature below 1000°C but preferably within 850°C to 950°C and for a specified length of time depending on the adsorption efficiency of the active carbon material desired and finally cooling the active carbon product.

CLASS 32-F-2(b), 60-X-2(d).

130101.

PROCESS FOR PREPARING SUBSTITUTED BENZO(b) THIOPHENES.

PFIZER INC., OF 235 EAST 42ND STREET, NEW YORK 17, NEW YORK, UNITED STATES OF AMERICA.

Application No. 130101 filed January 29, 1971.

Convention date July 17, 1970 (34661/70) U.K.

#### 4 Claims

A process for preparing benzo [b] thiophenes of the formula 2 of the accompanying drawings, wherein X is a 2-imidazolin-2-ylamino group of the formula 3, and Y is one or more chlorine or bromine atoms, and wherein when X is in the 5-position then Y is 3, 4-dichloro or 3, 4, 6-trichloro; and when X is in the 4-position then Y is 5-chloro or 5, 7-dichloro, or 3, 5-dichloro; and when X is in the 6-position then Y is 5, 7 dichloro; and when X is in the 7-position then Y is 6-chloro; and when X is in the 3-position then Y is 2-chloro, and when X is in the 2-position then Y is 3-chloro, and the pharmaceutically-acceptable acid addition salts thereof, comprising reacting the corresponding benzo [b] thiophene isothiuronium derivative of the formula 4, with ethylene diamine, at a temperature in the range of about 20°C. to about 200°C.

CLASS 81, 144-A.

130310.

IMPROVEMENTS IN OR RELATING TO FIRE EXTINGUISHERS.

SUR EXTINGUISHERS CORPORATION AND SUR INDUSTRIES PRIVATE LIMITED, BOTH OF 163 ACHARYA JAGADISH CHANDRA BOSE ROAD, CALCUTTA-14, WEST BENGAL, INDIA.

Application No. 130310 filed February 17, 1971.

### 8 Claims

An improved fire extinguisher which has the inner metallic wall of its body lined with polythene for the prevention of corrosion and wherein the bonding between said wall and the polythene lining is effected by means of an epoxy resin.

CLASS 129J.

130894.

A DEVICE FOR ROLLING SCREW THREAD.  
NEDSCHROEF OCTROOI MAATSCHAPPIJ N. V.,  
OF KANAALDIJK 71, HELMOND, THE NETHER-  
LANDS.

Application No. 130894 filed April 8, 1971.

### 6 Claims

A device for providing workpieces such as bolts with screwthread by means of flat rolling tools, comprising a rolling tool horizontally movable and mounted in a frame of the device for reciprocation along a stationary rolling tool held by holding means in the frame, the holding means being adjustable in a vertical direction for setting the pitch of the screwthread and in a transverse direction perpendicular to the direction of reciprocation for setting the diameter of the screwthread and being adjustable to an inclined position in order to incline an operative face of the stationary tool with respect to an operative face of the movable tool to provide the same diameter over the entire length of the screwthread, characterized in that the holding means is provided with a cleft extending in the longitudinal direction of the holding means parallel to the direction of reciprocation, such cleft presenting a lower termination in the form of a slit-shaped bore extending longitudinally through the holding means and an upper termination in the form of a longitudinally extending groove receiving an adjustable member for controlling the width of the groove thereby to set the inclined position of the holding means.

CLASS 27-I, 71-B-D-E.

131024.

METHOD OF CONSTRUCTING IN SITU THIN DIAPHRAGM WALLS.

AMITAVA GHOSH DASTIDAR, OF 23-C, FERN ROAD, CALCUTTA-19, WEST BENGAL, INDIA.

Application No. 131024 filed April 19, 1971.

### 19 Claims

A method of constructing in situ thin diaphragm for use as cut-off material in stopping or reducing seepage of underground water comprising cutting a thin trench or excavation of desired length and depth, lowering thereinto a stiff laminar framework with an impervious membrane on at least one face thereof and feeding cement mortar slurry concrete; soil, bentonite or soil/bentonite slurry to the trench or excavation adjacent said membrane, said impermeable membrane forming a barrier against seepage of water.

CLASS 32-F-3(a).

131077.

PROCESS FOR PREPARING ETHYLENE GLYCOL ESTERS.

HALCON INTERNATIONAL, INC., 2 PARK AVENUE, NEW YORK, NEW YORK 10016, UNITED STATES OF AMERICA.

Application No. 131077 filed April 22, 1971.

Addition to No. 122893.

### 5 Claims—No drawings

A process for preparing ethylene glycol esters which comprises contacting at a temperature above the ambient

temperature ethylene and molecular oxygen in an oxidation zone comprising a carboxylic acid in the liquid phase and a catalyst which comprises bromine and tellurium metal cation, and maintaining in a manner such as herein described, the pH of the liquid phase during the course of the oxidation at a pH of less than 2.0.

CLASS 92-A, 9-E.

130997.

A NEW PROCESS FOR THE PREPARATION OF TAMARIND KERNEL POWDER FROM THE SEEDS OF *TAMARINDUS INDICA* LINN.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 130997 filed April 16, 1971.

### 3 Claims—No drawings

A process for the preparation of tamarind kernel powder (TKP) by extraction with organic solvent and pulverization characterised in that broken dehusked seeds are subjected to decolourisation and extraction, further characterised in that the organic solvent used for extraction consists of acetone or alcohol.

CLASS 152-E, 104-F, 1-A.

131139.

CONTACT ADHESIVES.

DUNLOP HOLDINGS LIMITED, OF DUNLOP HOUSE, RYDER STREET, ST. JAMES'S, LONDON S. W. 1. ENGLAND.

Application No. 131139 filed April 27, 1971.

Convention date April 28, 1970 (20254/70) U.K.

### 20 Claims—No drawings

A contact adhesive which contains a solution and/or dispersion of a polychloroprene in a non-aqueous liquid and as a thixotropic agent for said adhesive a hydroxy substituted fatty acid having 12-24 carbon atoms in the or each carbon chain (as hereinbefore defined), or a derivative of said acid.

CLASS 160-A.

131247.

MOTOR VEHICLE INJURY AND DAMAGE PREVENTION SYSTEM.

ADDISON SUMMERS BACKLEY, 48 BALTUSROL WAY, SHORT HILLS, COUNTY OF ESSEX, STATE OF NEW JERSEY 07078, UNITED STATES OF AMERICA.

Application No. 131247 filed May 5, 1971.

### 31 Claims

A motor vehicle provided with a bumper assembly comprising the following elements:—(a) A relatively thin sheet of stiff, somewhat flexible, highly impact-resistant material adapted to be disposed fixedly over a portion of the front and/or rear sides of the motor vehicle, and (b) A relatively thick mass of cellular, shock absorbing material disposed on the outer face of said sheet.

CLASS 32-E, 152.

131269.

PROCESS FOR PREPARING HYDROPHILIC COPOLYMER.

HYDROPHILICS INTERNATIONAL, INC., OF 200 PARK AVENUE, NEW YORK, N. Y., UNITED STATES OF AMERICA.

Application No. 131269 filed May 6, 1971.

### 6 Claims

A process for preparing a hydrophilic copolymer which comprises bulk copolymerization of a mixture compris-

ing from 25 to 50%, by volume, methyl methacrylate, from 40 to 60%, by volume, of a member selected from the class consisting of acrylic acid and methacrylic acid, and from 5 to 20 parts, by volume, of a long chain ester of acrylic or methacrylic acid platizer such as herein described, and neutralizing the acid group of said copolymer with a mild aqueous basic solution, and if desired, by removal of water from the copolymer to form a film.

CLASS 39-K. 131417.

#### CATALYTIC OXIDATION OF $\text{SO}_2$ TO $\text{SO}_3$ .

BAYER AKTIENGESellschaft, FORMERLY KNOWN AS FARBENFABRIKEN BAYER AKTIENGESellschaft, of LEVERKUSEN, FEDERAL REPUBLIC OF GERMANY.

Application No. 131417 filed May 19, 1971.

#### 5 Claims

In the process for producing  $\text{SO}_3$  comprising the steps of catalytically oxidizing  $\text{SO}_2$  with air to  $\text{SO}_3$  in a plurality of contact stages and subjecting the product gases to absorption to remove some of the  $\text{SO}_3$  at some stage prior to the last and after an  $\text{SO}_2$  conversion of about 80 to 95% the improvement which comprises incorporating in the  $\text{SO}_2$ -containing gas prior to its introduction into the first catalyst stage an air stream which has been passed through oleum and thereby picked up  $\text{SO}_3$ , the proportions being such that the resultant gas fed to the first catalyst stage contains about 2 to 10% by volume of  $\text{SO}_3$ .

CLASS 39-C, 39-K, 40-F. 131536.

#### PROCESS AND APPARATUS FOR THE RECOVERY OF AMMONIA AND CARBON DIOXIDE FROM THE TAIL GAS OF A UREA SYNTHESIS

STAMICARBON N.V., OF VAN DER MAESENS-TRAAAT 2, HEERLEN, THE NETHERLANDS.

Application No. 131536 filed May 29, 1971.

#### 14 Claims

In a process for the recovery of ammonia and carbon dioxide from the tail gas of a urea synthesis, the said tail gas containing oxygen and possibly contaminant gases, wherein said tail gas is treated in one or more absorption zones with an aqueous medium whereby the ammonia and carbon dioxide are substantially absorbed from the tail gas, and the remaining gas mixture is discharged from the, or the final, absorption zone; the step of diluting the gas mixtures leaving the, or the last, absorption zone with a gaseous substance, such as herein described so as to substantially eliminate the risk of explosion if the said remaining gas mixture, and discharging the resulting gas mixture from the said absorption zone.

CLASS 32-F-3(a). 131545.

#### PROCESS FOR PREPARING GLYCOL ESTERS FROM OLEFINICALLY UNSATURATED COMPOUNDS

HALCON INTERNATIONAL, INC., AT 2 PARK AVENUE, NEW YORK, NEW YORK 10016, UNITED STATES OF AMERICA.

Application No. 131545 filed May 31, 1971.

Addition to No. 127395.

#### 9 Claims—No drawings

A process for preparing vicinal glycol esters which comprises contacting an olefinically unsaturated compound and molecular oxygen in an oxidation zone comprising a carboxylic acid in the liquid phase and a cata-

lyst and maintaining an equilibrium water concentration below about 15 weight per cent but which is at least about 0.5 weight per cent.

CLASS 32-F-3-d. 131599.

#### PROCESS FOR THE MANUFACTURE OF OXYGENATED PENTAMETHYLDICALINS

L. GIVAUDAN & CIE SOCIETE ANONYME, OF VERNIER—GENEVE, SWITZERLAND.

Application No. 131599 filed June 4, 1971.

#### 4 Claims

A process for the manufacture of cis-4a, 5, 6, 7, 8, 8a-hexahydro-3, 4a, 5, 5, 8a-pentamethyl-2 (1H)-naphthalenone having the formula I shown in the accompanying drawings which comprises oxidizing cis-dihydrothujopene with an oxidant in an anhydrous medium.

CLASS 170-C. 131686.

#### A PROCESS FOR THE PREPARATION OF A FRENCH POLISH FROM "CHANDRUS" WITHOUT THE USE OF ANY METHYLATED SPIRIT

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 131686 filed June 14, 1971.

#### 1 Claim—No drawings

A process for the preparation of french polish by dissolving the crude resinous exudation of *shorea weisneri* Schiffn. fam. Dipterocarpaceae, locally known as "chandrus" in a solvent characterised in that "chandrus" is dissolved in a 1 : 1 mixture of commercial benzene and n-Hexane, by refluxing over a water bath, and further characterised in that the refluxed solution is further diluted with 5-8 volumes of n-Hexane, whereby is obtained a french polish which gives hard and glossy finish to surfaces of wooden furniture that have received a ground coat of shellac polish.

CLASS 107-D. 131728.

#### A MECHANISM FOR REDUCING THE CLEARANCE VOLUME AT THE END OF EXHAUST-STROKE OF FOUR STROKE I.C. ENGINE

PRAKASH PURUSHOTTAM GUPTA, C/O SHRI PURUSHOTTAM GUPTA, RANJIT-CHOWK, P.O. BARWANI, DIST. W. NIMAD (M.P.).

Application No. 131728 filed June 15, 1971.

#### 1 Claim

A four stroke I.C. Engine having a mechanism to reduce the clearance volume at the end of exhaust stroke by causing the piston to reach nearer the cylinder head than that in the conventional engine while still maintaining the requisite clearance volume at the end of compression stroke, which mechanism comprises an eccentric crank-pin which rotates about its own axis at half the speed of the crankshaft by a planet gear fixed on to the crank pin and meshing with a sun gear fixed to the body or frame of the engine, the number of teeth on the planet gear being double that of the sun gear.

CLASS 139-A, 85-M, 190-B. 131855.

#### PROCESS FOR MANUFACTURING FURNACE CARBON BLACK AND CARBON BLACK FURNACE TURBO-CHARGER COMBINATION

CITIES SERVICE COMPANY, OF 60 WALL STREET, NEW YORK, STATE OF NEW YORK, UNITED STATES OF AMERICA.

Application No. 131855 filed June 23, 1971.

## 26 Claims

In a furnace carbon black manufacturing process wherein a mixture of air and fuel is burned to produce hot combustion gases and feedstock hydrocarbon is dispersed within said hot gases in the furnace and is thermally decomposed therein to form carbon black by adsorption of heat from said gases, thus producing a heated aerosol of carbon black suspended in the hot gases produced by combustion of said mixture and by thermal decomposition of said feedstock hydrocarbon, the method for supplying the air for said mixture using a turbocharger, as hereinbefore defined, having an expander stage and a compression stage which comprises:— (a) passing said aerosol from the furnace into the expander stage of a turbocharger and thus driving the turbocharger; (b) compressing a stream of air in the compressor stage of said turbocharger and supplying the resultant compressed air stream for mixture with the fuel that is burned to produce said hot combustion gases; and (c) collecting the carbon black from said aerosol after discharge from said turbocharger.

CLASS 105-C, 24-F, 69-G.

131885.

## IMPROVEMENTS IN OR RELATING TO LINING WEAR INDICATORS

GIRLING LIMITED, OF KINGS ROAD, TYSELEY, BIRMINGHAM 11, ENGLAND.

Application No. 131885 filed on June 26, 1971.

Convention date June 26, 1970 (31004/70) U.K.

## 16 Claims

A vehicle brake lining wear indicator when used in a brake in which a movement of one part relative to another part greater than a predetermined amount indicates a need for adjustment or replacement of one or more of said parts, in which indicator a pair of separable electric contacts are resiliently biased together and means associated with the said contacts extend therefrom for co-operation with said parts so that the means applies a force tending to separate the contacts against the bias when the movement is greater than the predetermined amount.

CLASS 24-D-4.

131978.

## IMPROVEMENTS RELATING TO TRANSMISSION ASSEMBLY FOR TRACTORS AND LIKE VEHICLES

GIRLING LIMITED, OF KINGS ROAD, TYSELEY, BIRMINGHAM 11, ENGLAND.

Application No. 131978 filed July 3, 1971.

Convention date July 4, 1970 (32527/70 & 32530/70) U.K.

## 9 Claims

A transmission assembly for a tractor or like vehicle comprising a stationary casing enclosing transmission gearing including a rotatable shaft and brake discs slidably keyed on and rotatable with said shaft, wherein a brake housing is rigidly mounted in said casing and incorporates a bore of which the axis is parallel to that of the shaft and which is intersected by said brake discs, friction members are in the bore, and an hydraulic actuator is located in the housing for applying an axially directed pressure to said friction members to bring them into engagement with said brake discs.

CLASS 70-C-4.

131959.

## IMPROVEMENTS IN OR RELATING TO THE ELECTROLYTIC PREPARATION OF LEAD DIOXIDE POWDER

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-1, INDIA.

Application No. 131959 filed July 2, 1971.

## 10 Claims

A process for the electrolytic preparation of lead dioxide powder which comprises electrolysis of a solution of 50-100 g/l lead nitrate of 90-100 g/l lead perchlorate in a divided cell, wherein 0.5 to 2.0 g/l of addition agents like sodium lauryl sulphate, cetyl trimethyl ammonium bromide, p-toluene sulphonamide or saccharin are added and graphite substrate lead dioxide anode and stainless steel or graphite cathode are used and employing an anode current density of 15-40 amp/dm<sup>2</sup>, a temperature of 25-40°C and an initial pH of ~1 to 4.

CLASS 55-D-1, 55-D-2.

131919

## METHOD OF DEODORIZING ORGANOTHIOPHOSPHORUS COMPOUNDS

MOBIL OIL CORPORATION, OF 150 EAST 42ND STREET, NEW YORK, NEW YORK, 10017, UNITED STATES OF AMERICA.

Application No. 131919 filed June 29, 1971.

## 9 Claims

A method of deodorizing a compound of the structure shown in Fig. 1 of the accompanying drawings, wherein R is H, alkyl, substituted alkyl, phenyl, alkyl-substituted phenyl, halo-substituted phenyl, phenyl-substituted phenyl or carboethoxyalkyl, R' is alkyl, X is O or S, n is 0 or 1, and Y and Z are not the same and are O or S comprising blending the compound with a deodorizing compound selected from linoleic acid, linolenic acid or a mixture of linoleic and linolenic acids in an amount of 5 to 40% of the weight of the said compound.

CLASS 32-F-3(b).

132059.

## PROCESS FOR PRODUCING CARBOXYLIC ACIDS

SNAM PROGETTI S.p.A., OF CORSO VENEZIA 16, MILANO, ITALY.

Application No. 132059 filed July 9, 1971.

## 13 Claims—No drawings

A process for preparing one or more carboxylic acids, which comprises subjecting a mono metal salt of a carboxysulphonic acid to pyrolysis, and separating by a known method such as herein described the resulting carboxylic acid(s) from the products of the pyrolysis.

CLASS 94-I, 80-C &amp; G.

132117.

## IMPROVEMENTS IN OR RELATING TO CONTINUOUS SQUEEZING PRESS OF THE V-TYPE

RYUTARO YORITOMI, OF JAPAN, AT 5-17-12, KOISHIKAWA, BUNKYO-KU, TOKYO, JAPAN.

Application No. 132117 filed July 14, 1971.

## 10 Claims

A continuous press which comprises a pair of filter discs arranged face-to-face within an outer annular casing fixed to a base frame; a pair of shafts for supporting the filter discs in a freely rotatable manner, the inner

ends of said shafts pivotally connected with each other by a center pin; the center pin being supported at the center of the outer annular casing by a plate rigidly connected to said outer annular casing by a rigid arm; first connecting levers and second connecting levers fixedly supporting the outer ends of the supporting shafts; the free ends of said first connecting levers being in a plane including the inter crossed supporting shafts; the free ends of said second connecting levers being in planes including the respective supporting shafts and the axial line of the center pin; the free ends of the first connecting levers being fixed on a connecting member at the outside of the outer annular casing in a freely adjustable manner; and the free ends of the second connecting levers being engaged with each other by an outer pin in the axial line of the center pin.

CLASS 85-O. 132198.

**METHOD AND APPARATUS FOR CONTINUOUSLY DETERMINING THE TEMPERATURE OF ORE IN A MULTIPLE HEARTH FURNACE**

SHERITT GORDON MINES LIMITED, AT 25 KING STREET WEST, TORONTO, ONTARIO, CANADA.

Application No. 132198 filed July 22, 1971.

Convention date August 4, 1970 (089809/70) Canada.

**8 Claims**

In the method of roasting an ore disposed on a hearth of a multi-hearth furnace at a temperature controlled within a preselected range to increase the amenability of said ore to a subsequent process for extraction of desired constituents therefrom, said ore being disposed in two beds having a common interface and comprising a lower dead bed and an upper live bed, said dead bed remaining relatively undisturbed and said upper bed being continuously raked, the improved procedure for continuously determining the temperature of the ore in said live bed characterized in that a thermometer is placed in the dead bed and said temperature determination is utilized to control the roasting temperature of the ore in said live bed within said preselected temperature range.

CLASS 102-B. 132282.

**THICKENED AQUEOUS COMPOSITIONS CONTAINING ACRYLAMIDOALKANE-SULFONATE POLYMERS USEFUL AS HYDRAULIC FLUIDS**

THE LUBRIZOL CORPORATION, CLEVELAND, OHIO 44117, U.S.A.

Application No. 132282 filed July 28, 1971.

**13 Claims**

A process for preparing an aqueous composition useful as hydraulic fluid which comprises forming a blend of water, a water-miscible diol or ether thereof, and as viscosity modifying agent a water-soluble polymer containing repeating units of the formula as shown in figure 1 of the drawings wherein  $R^1$  is hydrogen or a lower alkyl or substituted lower alkyl radical;  $R^2$  is a hydrocarbon or substituted hydrocarbon radical; each of  $R^3$ ,  $R^4$  and  $R^5$  is hydrogen or a hydrocarbon or substituted hydrocarbon radical; and M is hydrogen or one equivalent of a cation.

CLASS 152-E, 32-E. 132335.

**A PROCESS FOR PREPARING A POLYURETHANE COMPOSITION**

ASTERION LIMITED, OF 54, SHEPHERD ROAD, OAKVILLE, ONTARIO, CANADA.

Application No. 132335 filed August 2, 1971.

Convention date August 3, 1970 (37428/70) U.K.

**18 Claims**

A process for preparing a rigid, substantially homogeneous polyurethane composition which comprises reacting in a single step a polyisocyanate with an aliphatic polyol containing from 4 to 5 hydroxyl groups and an average of not more than 1.5 ether linkages per reactive hydroxy group, the isocyanate and the polyol being at the start of the reaction in homogeneous liquid phase admixture with a hydrocarbon having aromatic character and boiling not lower than 110°C, the weight ratio of hydrocarbon to reactants being in the range 1 : 10 to 11 : 9.

CLASS 32-F, C, 40-B.

132384.

**PROCESS FOR CONVERTING AN ALIPHATIC NITRILE TO THE CORRESPONDING AMIDE**

THE DOW CHEMICAL COMPANY, AT MIDLAND COUNTY OF MIDLAND, STATE OF MICHIGAN, UNITED STATES OF AMERICA.

Application No. 132384 filed August 5, 1971.

**7 Claims—No drawings**

A process for converting an aliphatic nitrile to the corresponding amide characterized by contacting the nitrile in presence of water with a catalyst comprising from 10 to 99 per cent by weight of at least one oxide of copper, silver, zinc or cadmium and from 1 to 90 per cent by weight of at least one oxide of chromium or molybdenum.

CLASS 32-F, a, 32 F, c, 40-B.

132385.

**PROCESS FOR CONVERTING A NITRILE TO THE CORRESPONDING AMIDE**

THE DOW CHEMICAL COMPANY, AT MIDLAND, COUNTY OF MIDLAND, STATE OF MICHIGAN, UNITED STATES OF AMERICA.

Application No. 132385 filed August 5, 1971.

**15 Claims—No drawings**

A process for converting a nitrile to the corresponding amide which comprises contacting the nitrile in presence of water with a cupreous catalyst comprising reduced copper oxide at a temperature within the range of from 0 to 400°C in the liquid phase.

CLASS 34-A.

132457.

**SYNTHETIC FIBERS FROM POLY-VINYLCALCOHOL OF GOOD WATER SOLUBILITY**

KURARAY CO. LTD., 1621, SAKAZU, KURASHIKI-CITY, JAPAN.

Application No. 132457 filed August 10, 1971.

**2 Claims—No drawing**

A process of preparing fibers of polyvinylalcohol capable of dissolving in water at a temperature not higher than 30°C which comprises; forming a solution of polyvinylalcohol having a degree of saponification of 80-97% and of polymerization of 400-1000 having a water content of 30-70%; and spinning said solution through a spinning nozzle and such that a polyvinylalcohol fiber is formed.

CLASS 61-H.

132533.

**A DEVICE FOR THE DETERMINATION OF MOISTURE CONTENT**

MRS. MEERA MURALIDHAR HATTIANGADI AND DR. MURALIDHAR SHIVA RAO HATTIANGADI, BOTH OF 759/42, KALEWAR BUNGALOW, DECCAN GYM KHANA, POONA-4, MAHARASHTRA STATE, INDIA.

Application No. 132533 filed August 16, 1971.



## 4 Claims

A device for the determination of moisture contained in samples from which water can be absorbed by methanol by direct contact or moisture expelled by heating is absorbed by the methanol from the air circulating through it by titrating it against a mixture of pyridine-sulphur dioxide and iodine-methanol solution, known as Karl Fisher reagent, the device having for its essential parts :—(i) a burette with an electromagnetically controlled valve wherein a coil wound round a core moves an armature on a fulcrum so that when the coil is not energised the armature moves away from the core under the tension of a spring thereby pressing a rod moving in a perspex block which in turn presses a rubber tube passing through a hole in the same block at right angle to the moving rod thus preventing the flow of the Karl Fisher reagent through the rubber tube, and when the coil is energised pulls the armature towards the core so that the pressure on the tube is released and the reagent is allowed to flow through the rubber tube, (ii) a magnetic stirrer with a magnetised stirring rod and a magnet rotating below the titrating beaker, the magnet being rotated by a motor whose speed can be regulated; (iii) a directly coupled signal amplifier, called the main amplifier, with an input transistor, a driver transistor stage, and a final power transistor stage to operate the electromagnetically controlled valve to automatically control the flow of the reagent as per the input signal; (iv) a pair of platinum electrodes dipped in the methanol in the titration beaker, one connected to the emitter of the input transistor and the other to its base, called the live electrode, a few d.c.m. volts being applied to the live electrode through a potential divider and an adjustable potentiometer, which forward biases the input stage; (v) a univibrator consisting of two transistors of the p-n-p type, having identical collector loads resistances and the emitters of both of them grounded, the base of the second transistor being coupled back to the first transistor collector through a resistance, a switch, called the "Start Titration" switch, normally open, connected between the base of the first transistor and the ground to short the base to ground momentarily, an adjustable resistance connected between the base of the first transistor and the common negative supply, to adjust the period of the univibrator, a condenser connected between the base of the first transistor and the collector of the second, which along with the adjustable resistance determines the period of the univibrator, second coupling condenser connected between the emitter of the final power stage of the main amplifier and the collector of the second transistor of the univibrator; (vi) a third p-n-p power transistor directly coupled to the base of the second transistor of the univibrator where a negative pulse appears when the univibrator goes to the unstable stage, a filament lamp, called the pilot lamp, connected as a collector load of this transistor, so that when the univibrator goes to the unstable stage the pilot lamp is lighted; (vii) a phototransistor mounted directly on the glass envelope of the pilot lamp with the base of the phototransistor connected to the base of the final stage transistor of the main amplifier and the emitter of the phototransistor being connected to the variable point on the potentiometer connected between the ground and collector of the driver stage of the main amplifier, so that signals from the driver stage are able to reach the base of final stage only when the phototransistor is illuminated by the pilot lamp and the signals are blocked by the phototransistor when it is not illuminated; the arrangement being such that when the dry methanol in the titration beaker is mixed with sample containing moisture the electrodes get polarised and due to forward biasing the input transistor draws current and when the "start titration" switch is pressed the univibrator goes to the unstable condition and pilot lamp is lighted so that the final stage gets the signal corresponding to polarisation and high current passes through the coil of the electromagnetic valve and

Karl Fisher reagent is added to the methanol in the titration beaker, the additions taking place in discrete steps because after each addition the electrodes get temporarily depolarised and the flow of the reagent stops and again they get polarised when the reagent is consumed by the moisture in the sample and the reagent is added again, every time the additions are made the univibrator gets a signal from the emitter circuit of the final stage of the main amplifier, thereby keeping the univibrator in the unstable stage and keeping the pilot lamp lighted up, and finally if no further additions of the Karl Fisher reagent are made before the predetermined period, say 20 seconds, the univibrator switches back to its quiescent condition and the pilot lamp is switched off and no further additions are made and that is the final end point of titration.

CLASS 107-B.

132612.

## IMPROVEMENTS IN OR RELATING TO FREE PISTON ENGINE

ANTON BRAUN, OF 6421 WARREN AVENUE, MINNEAPOLIS, MINNESOTA 55435, UNITED STATES OF AMERICA.

Application No. 132612 filed on August 21, 1971.

## 13 Claims

A free piston engine including ignition means for igniting fuel in a cylinder for combustion when compressed on a compression stroke of the piston during normal running of the engine, means for supplying, at starting, a combustible starting mixture to the (or another) cylinder, means for driving the piston in a preliminary compression stroke prior to ignition for a first working stroke, and auxiliary means for igniting the combustible starting mixture for initiating the first working stroke as the piston reaches a position on the preliminary compression stroke at which pressure in the cylinder is substantially below the pressure at which ignition occurs during normal running of the engine.

CLASS 32-F-1, 152-E, 62-C-1.

132628.

## A PROCESS FOR THE PREPARATION OF HETERO-CYCLIC COMPOUNDS OF LOW SOLUBILITY

SANDOZ LTD, OF LICHTSTRASSE 35, BASLE, SWITZERLAND.

Application No. 132628 filed August 23, 1971.

## 1 Claim

A process for the production of sparingly soluble heterocyclic compounds of formula II as shown in the accompanying drawings, wherein either R<sub>1</sub> is chlorine and R is hydrogen or R<sub>1</sub> is hydrogen and R is a methyl radical, which process consists in reacting 2 mols of 5, 6-dichloro-3-imino-isoindolinone or 5, 6-dichloro-3, 3'-dihalogeno-iso-indolinone with 1 mol of 2, 2'-dichloro- or 3, 3'-dimethyl-4, 4' diaminodiphenyl.

CLASS 132-A-2.

132636.

## AN AGITATING APPARATUS

MRS. NEELA ARJUN BHAGAT, OF ARLOSH, GARHI, RANCHI CANTONMENT, RANCHI 9, STATE OF BIHAR, INDIA

Application No. 132636 filed August 24, 1971.

## 2 Claims

An electrically operated agitating apparatus for fluids comprising a water-proof longitudinal housing wherein is located a part of the driving mechanism and a receptacle with an exit cock and a water-proof lid to hold the material to be agitated, the receptacle being adapted to receive vertically downwards the said housing with an

electric motor mounted on the front cover of the housing at its upper end and the agitator fan on the rear cover of the housing at its lower end, the housing being constructed with the said two covers fitting each other water-proof, each cover having a flat panel of a predetermined shape with a peripheral rising edge and having moulded integrally with it bearing-housings for the driving mechanism, the shafts of the electric motor and the agitator fan-projecting inside the housing and being provided with driving pulleys, the driving pulley of the electric motor being connected with drive-belt to an intermediate double pulley, and the intermediate double pulley being connected by another drive-belt to the driving pulley of the agitator fan, wherein the housing is inserted into the receptacle with the portion of the housing carrying the electric motor projecting above the top of the receptacle and the lid is then fixed water-proof to the receptacle.

CLASS 32-A-1, 62-C-1, 144-D, 144-E<sub>2</sub>, 144-E<sub>3</sub>. 132648.

#### PROCESS FOR THE PREPARATION OF MONOAZO PIGMENTS

FARBWERKE HOECHST AKTIENGESELLSCHAFT VORMALS MEISTER LUCIUS & BRUNING, OF 45, BRUNINGSTRASSE, FRANKFURT/MAIN, FEDERAL REPUBLIC OF GERMANY.

Application No. 132648, filed August 24, 1971.

#### 4 Claims

A process for the preparation of a monoazo pigment of the formula 1 of the accompanying drawing in its new  $\alpha$ -modification, characterized by an X-ray diagram by means of Cu-K-radiation, which showed at glance angles of 3.7° and 12.8° maxima of high intensity, at 5.7°, 7.7° and 9.1° maxima of middle intensity and at 4.5°, 6.5°, 7.3°, 8.30° and 11.0° maxima of low intensity, characterized by heating the  $\alpha$ -modification of the monoazo pigment of the same formula in an aqueous suspension, up to temperatures between 90° and 200°C, preferably 95° to 150°C.

CLASS 148-h. 132754.

#### A METHOD OF APPLYING ELECTROSTATICALLY ATTRACTABLE THERMOPLASTIC TONER PARTICLES TO THE SURFACE OF A PHOTOCONDUCTIVE MEMBER

INTERNATIONAL BUSINESS MACHINES CORPORATION, OF ARMONK, NEW YORK 10504, UNITED STATES OF AMERICA.

Application No. 132754 filed September 2, 1971.

#### 15 Claims—No drawings

A method of applying electrostatically attractable thermoplastic toner particles to the surface of a photoconductive member wherein the toner particles are applied in admixture with particles of an organic polymer present in an amount up to 10% by weight of the toner particles, the surface free energy of the polymer particles being lower than that of the toner particles and the average size of the polymer particles being less than that of the toner particles.

CLASS 107-F. 132764.

#### A CAPACITOR DISCHARGE IGNITION UNIT FOR USE IN AUTOMOBILES MOTOR CARS OR THE LIKE

KANTA MOHAN, C. I. QUARTER No. 5/17 JAIL BAGH ROAD, JAHANGIRABAD, BHOPAL, (MADHYA PRADESH).

Application No. 132764 filed September 3, 1971.

Post date 6th June 1972.

#### 10 Claims

A capacitor discharge ignition unit for use in automobiles, motor vehicles or the like for easy starting even under sub-zero conditions or with badly fouled spark plugs and adapted to be attached to the existing ignition coil of the vehicle comprises a self-regulating convertor known as the inverter which coupled to a storage capacitor, capable of storing electrical energy, a control section and a trigger section all being compactly fixed in a housing characterised in that the said inverter consists of a transistorised power oscillator which converts the 12 or 6 volt direct current from the vehicle battery into alternating current which is thereafter rectified in the control section, comprising a silicon controlled rectifier and finally passed on to the storage capacitor and the whole arrangement is such that each time the contact breaker points are opened, the trigger transistor of the trigger section transmits a positive pulse to the silicon controlled rectifier which as a result rapidly fires and discharges the storage capacitor through the ignition coil of the vehicle thus producing a high voltage which ensures easy starting even under subzero conditions and enables even the badly fouled spark plugs of the engine to smoothly operate.

CLASS 56-B. 132854.

#### PROCESS FOR MANUFACTURING GASEOUS MIXTURES RICH IN HYDROGEN

TOYO ENGINEERING CORPORATION, OF 2-5, 3-CHOME, KASUMIGASEKI, CHIYODAKU, TOKYO, JAPAN.

Application No. 132854 filed September 9, 1971.

#### 17 Claims

A process for manufacturing gaseous mixtures rich in hydrogen by catalytic steam reforming a feed stock of normally gaseous or liquid hydro-carbons which comprises heating said feedstock together with steam in the presence of a reforming catalyst consisting of substantially silica-free aluminium oxide which catalyst can optionally contain from 10 to 60 wt. per cent of at least one silica-free alkaline earth oxide selected from the group consisting of beryllium oxide, calcium oxide and strontium oxide.

CLASS 32-F<sub>2a</sub>. 132884.

#### A PROCESS FOR PRODUCING ESTERS OF MONOHYDRIC ALCOHOL

NIZHEETAGILSKY ORDENA TRUDOVOGO KRASNOGO ZNAMENI ZADOV PLASTMASS, OF SVERDLOVSKAYA OBLAST, N. TAGIL, USSR.

Application No. 132884 filed September 13, 1971.

#### 4 Claims

A process for producing esters of monohydric alcohols and carboxylic acids by esterification of said carboxylic acids with said alcohols without a catalyst or in the presence of a catalyst of an acidic nature, elimination of acidic impurities and remaining alcohol from the esterification product, purification thereof by distillation or treatment with sorbents, characterized in that the elimination of acidic impurities is effected by dispersion of the esterification product into drops in aqueous caustic alkali solutions of a concentration selected within the range of from 2 to 20% depending on the acid to be esterified, and with a layer thickness sufficient to complete the diffusion of said impurities from inside of a drop onto the surface thereof during the time of ascending said drops of the esterification product possessing a lower density as compared to that of the caustic alkali solution, through said layer; said impurities being neutralized on the surface of a drop with the caustic alkali

solution thus forming salts passing into the aqueous alkali solution.

CLASS 85-C, R, 108-B-2(a). 133202.

AN IMPROVED METHOD FOR THE MANUFACTURE OF PIG IRON AND A BLAST FURNACE

TUYERE THEREFOR

INSTITUT DE RECHERCHES DE LA SIDERURGIE FRANCAISE, OF 185 RUE PRESIDENT ROOSEVELT, 78 SAINT GERMAIN-EN-LAYE, FRANCE.

Application No. 133202 filed October 11, 1971.

#### 5 Claims

For the manufacture of pig iron a method of introducing into a blast furnace an auxiliary liquid fuel as partial replacement of the coke employed in the furnace as a reducing agent, and of producing combustion of said auxiliary fuel in the tuyeres, comprising blowing the air blast required for the working of the blast furnace into tuyeres which incorporate a venturi, regulating the operation of the air blast in such a manner that it is raised locally to supersonic velocity in the tuyere so that a shock wave is created in the outlet or divergent portion, injecting the auxiliary fuel into the supersonic air stream in order to atomise the fuel and to mix it with the air, and igniting the mixture in the tuyere.

CLASS 69-I. 133429.

ELECTRICALLY OPERATED ACTUATOR  
DANFOSS A/S, NORDBORG, DENMARK.

Application No. 133429 filed on October 30, 1971.

#### 8 Claims

An electrically operated actuator comprising a working chamber which is filled with an expansible material adapted to be heated and in which is arranged a coil of heating wire, the actuator also comprising a control element, in particular a piston, which can be displaced by the expansible material, characterised in that the heating wire (16) is wound loosely on to a substantially U-shaped carrier (17) which is made of wire or strip material extending along the axis of the coil.

CLASS 98-II. 133466.

HEAT-SENSITIVE ELEMENT FOR MEASURING THE RATE OF FLOW OF A MEDIUM FLOWING PAST IT

ZELIWEGER LTD., USTER FACTORIES FOR APPARATUS AND MACHINES OF USTER (SWITZERLAND).

Application No. 133466 filed November 3, 1971.

#### 10 Claims

A heat-sensitive element for measuring the rate of flow of a medium flowing past, consisting of an electrical resistor with temperature-dependent resistance characteristics, connected across a source of electric energy and attaining a certain temperature above the surrounding atmosphere and adapted to be influenced by a medium flowing past it, wherein the heat-sensitive element is kept at a predetermined at least substantially constant temperature, by monitoring the voltage drop at said resistor, the additional energy required for keeping the temperature at a constant level being a measure of the rate of flow of the medium flowing past.

CLASS 89. 133578.

IMPROVEMENTS IN OR RELATING TO CARD GAUGE

INTERNATIONAL COMPUTERS LIMITED, OF ICL HOUSE, PUTNEY, LONDON, S.W. 15, ENGLAND.

Application No. 133578 filed November 11, 1971.  
Convention date March 26, 1971 (8723/71) U.K.

#### 5 Claims

A card gauge for providing a first check of punched hole positions in a punch card immediately after the holes have been punched and, after an interval of time, a second check of the hole positions immediately prior to sensing the holes, including a member having a flat surface locating projections engageable with adjacent edges of a card to be checked to locate a predetermined corner of the card to bring said card into a predetermined checking position with respect to the surface; a plurality of indicia positioned on the surface respectively to correspond to those positions on the card in which holes may be punched, the indicia at each position including first, second and third rectangular boundaries, the second boundary lying within and spaced from the first boundary and the third boundary lying between the first and second boundaries and respectively spaced therefrom such that when said first check is performed on an acceptable card there is visible through each punched hole the entire second boundary, at least a part of the third boundary and none of the first boundary, and when said second check is performed on an acceptable card there is visible through each hole the second boundary and none of the third and first boundaries.

CLASS 31-B. 133607.

MANUFACTURE OF SELF TUNING INDUCTOR

VIDYUTKUMAR MADHAO BAPAT, 33/10, LANE 5, PRABHAT ROAD, POONA 4, MAHARASHTRA STATE.

Application No. 133607 filed November 15, 1971.

#### 2 Claims

A method of manufacturing a self tuning inductor comprising of winding two insulated wires around a coil former such that the wires are touching each other physically to form a capacitance and connecting the finishing end of one winding to the starting end of the second winding to form a continuous winding and to form a large self capacitance across the remaining two terminals.

CLASS 69-I. 133910.

IMPROVEMENTS IN OR RELATING TO LOW PRESSURE SWITCHES

CLAYTON DEWANDRE COMPANY LIMITED, OF TITANIC WORKS, LINCOLN, ENGLAND.

Application No. 133910 filed on December 10, 1971.

#### 5 Claims

A low pressure switch for compressed air systems comprising a first body portion supporting a microswitch of the snap-action type, a hollow second body portion rotatably supported on the first body portion, means for locking the second body portion in a set position upon the first body portion, a plunger rotatable with the second body portion but displaceable axially therein, said plunger having operative connection with the actuating pin or button of the switch and being subjected to the fluid pressure pertaining in the system to be protected, and a loading spring acting on the plunger in opposition to said fluid pressure and the force of which is adjustable by rotation of the plunger.

CLASS 32-E, 32-F3(a).

133911.

PROCESS FOR PREPARING NOVEL DIMER ACID ESTERS.

KAO SOAP CO., LTD., OF 7-18, 1-CHOME, NISHONBASHI-BAKUROCHO, CHUO-KU, TOKYO, JAPAN.

Application No. 133911 filed December 10, 1971.

## 6 Claims.

A process for preparing dimer acid esters which comprises the steps of reacting, in the presence of acidic catalyst, unsaturated higher fatty acid ester or mixtures thereof with 0.2 to 0.8 mol, per mol of the unsaturated higher fatty acid esters, of a phenolic compound of the formula of the drawing where  $R_1$  is an alkyl group containing 1 to 4 carbon atoms or OH,  $R_2$  is H,  $CH_3$ , or  $CH_2CH_3$ , and  $n$  is 0, 1 or 2, with the proviso that at least two of the ortho- and para-positions on the benzene ring with respect to the OR2 are unsubstituted.

CLASS 129-J.

133948.

SHAPE CONTROL SENSOR FOR COLD ROLLING MILLS

GENERAL ELECTRIC COMPANY, OF 1 RIVER ROAD, SCHENECTADY 5, NEW YORK, UNITED STATES OF AMERICA.

Application No. 133948 filed December 15, 1971.

## 9 Claims.

A shape sensor for ductile strip material within a rolling mill wherein said strip material is passed between confronting rollers, said sensor including at least a first and second rotatable rolls against which said strip is pulled to exert a force upon said rolls, said rolls contacting said strip material at longitudinally spaced locations along the flow path of said strip material in said mill. One of said rolls having a surface contour in contact with said strip material differing from the surface contour of the other of said rolls in contact with said strip material, said surface contour of said roll tending to deflect said strip material in a plane transverse to the flow path of the strip material in the mill, means for measuring the force of said strip material upon said rolls, and means for comparing said force measurements of one roll with the force measurements of another roll for determining the tension in said strip.

CLASS 24-E-D<sub>1</sub>, 102-D.

134022

IMPROVEMENTS IN OR RELATING TO SERVO MOTORS.

GIRLING LIMITED, OF KINGS ROAD, TYSELEY, BIRMINGHAM, 11, WARWICKSHIRE, ENGLAND.

Application No. 134022 filed December 21, 1971.

Convention date December 22, 1970 (60734/70) U.K.

## 11 Claims.

A differential pressure operated servo booster of the type in which a load actuating member is displaceable by the application of different fluid pressure across a movable wall which incorporates a deflecting plate, the booster having a valve to selectively alter fluid pressure on one side of the movable wall relative to that on the other side, the valve comprising a flexible valve closure member, a load transmitting member and a valve body member which has a pair of concentric valve seats, the valve body member being slidably mounted concentric with the load transmitting member and being spring loaded with respect to the load transmitting member.

CLASS 70-A-C-4.

134084.

ELECTRODEPOSITION PROCESS AND APPARATUS.

NORTON COMPANY, OF 1 NEW BOND STREET, WORCESTER, STATE OF MASSACHUSETTS, UNITED STATES OF AMERICA.

Application No. 134084 filed December 27, 1971.

## 8 Claims.

A method of electrodeposition at elevated current densities wherein the entire metal surface on which deposit is effected is activated at extremely short repetitive time intervals throughout the period of imposed current flow by contact between the surface and a plurality of small, dynamically hard separate activating particles mixed with the fluid electrolyte which mixture is vibrated, to mechanically move the particles in relation to said surface while quantities of fresh electrolyte are supplied at high flow rate to the surface, the number of the particles being sufficiently great that the particles in the space immediately surrounding the surface during vibration does not differ by more than 5% from the number of particles in such space in the absence of vibration.

CLASS 31-A.

134163.

IMPROVED METAL-OXIDE-METAL, THIN-FILM CAPACITORS AND METHOD OF MAKING SAME.

RCA CORPORATION, OF 30 ROCKEFELLER PLAZA, NEW YORK, NEW YORK, 10020 UNITED STATES OF AMERICA.

Application No. 134163 filed on January 3, 1972.

## 2 Claims

A method of making metal-oxide-metal, thin-film capacitors on a surface of an insulating substrate comprising depositing a first layer of conductive material forming a first electrode on said surface; forming a silicon dioxide layer on a portion of said first electrode; characterized by densifying silicon dioxide layer by exposing said substrate, said electrode, and said silicon dioxide layer to a relatively inert, wet gaseous atmosphere while holding said substrate, said electrode, and said silicon dioxide layer at a surface temperature of from 395° to 425°C for a period of at least six hours; and, depositing a third layer of a conductive material forming a second electrode on said silicon dioxide layer to form said capacitor.

CLASS 76-E.

134167.

LOCKING DEVICE FOR FUEL TANK OF AUTOMOBILE.

MRS. KAMLABAI NARAYAN RASHINKAR, 498, SHANWAR PETH, POONA-30, MAHARASHTRA STATE, INDIA.

Application No. 134167 filed January 3, 1972.

## 1 Claim.

A locking device for fuel tank of automobile comprising a metallic cap having a hole in an extension piece and loosely rivetted to a 'L' shaped bracket having a hole at one end and a cylindrical portion at the other end for a tiebolt fitted to the tank to pass through the portion such that the cap when moved to cover the nut of the tie bolt provided for keeping the lid of the fuel tank in position, the two holes align for a lock to be inserted there through, thereby preventing any approach to the nut.

CLASS 154-F. 134222.

## IMPROVEMENTS IN OR RELATING TO PRINTING MACHINES.

VEB POLYGRAPH LEIPZIG KOMBINAT FÜR POLYGRAPHISCHE MASCHINEN UND AUSTRUSTUNGEN, OF 59 ZWEINAUNDORFER STRASSE, LEIPZIG, EAST GERMANY.

Application No. 134222 filed January 7, 1972.

Convention date May 11, 1971 (14353/71) U.K.

## 6 Claims.

Device for diagonal register adjustment of the forme cylinder and of the inking rollers for printing machines, especially rotary web offset printing machines, in which one of the bearings of each of the plate cylinders comprises an additional rotationally movable eccentric bush, the angular adjustment of which places the forme cylinder obliquely in relation to the impression cylinder and in which the inking rollers not tangential to the adjustment arc are at the same time positively influenceable thereby, wherein the eccentric bush for the diagonal adjustment of the forme cylinder comprises an axial groove in which a collar of the push-pull rod is guided, and in that a ring provided with at least two arms is arranged loosely on the eccentric bush between the machine wall and a securing ring fastened on the eccentric bush, the arms merging at their ends into angle pieces provided with threaded bores in which spindles for the fine adjustment of the inking roller bearings of the inking rollers and/or moistening-agent application rollers are movable.

CLASS 68-A. 134281.

## BATTERY CHARGING SYSTEMS FOR ROAD VEHICLES.

JOSEPH LUCAS (INDUSTRIES) LIMITED, OF GREAT KING STREET, BIRMINGHAM 19, ENGLAND.

Application No. 134281 filed January 14, 1972.

Convention date January 22, 1971 (2938/71) U.K.

## 2 Claims.

A battery charging system for a road vehicle, comprising in combination a multi-phase alternator having a plurality of output terminals, a full wave rectifier connecting said output terminals to the vehicle battery so that when the alternator produces an output it charges the vehicle battery, a series circuit connecting one of said output terminals to the vehicle battery, said series circuit including a resistor, the base-emitter circuit of a transistor and the ignition switch of the vehicle, a warning lamp connected in series with the field winding of the alternator and a thyristor in the collector-emitter circuit of said transistor, means for providing gate current to the thyristor as long as the battery voltage is below a predetermined value, and a set of diodes connecting the output terminals of the alternator other than said one output terminal to the circuit incorporating the field winding and the thyristor, the arrangement being such that when the thyristor is conducting, said set of diodes provides power to the thyristor and holds the warning lamp off, but once during each revolution of the alternator said set of diodes are all non-conductive and the transistor is off so that the thyristor can turn off.

CLASS 69-G. 134306.

## ELECTRICAL SWITCHES.

JOSEPH LUCAS (INDUSTRIES) LIMITED, OF GREAT KING STREET, BIRMINGHAM 19, ENGLAND.

Application No. 134306 filed January 18, 1972.

Convention date January 22, 1971 (2917/71) U.K.

## 7 Claims.

An electrical switch including a casing, a pair of fixed contacts supported within the casing, a slider mounted in the casing for sliding movement relative to the fixed contacts, a contact member carried by the slider and being arranged to engage said fixed contacts during sliding movement of the slider from a first position to an operative, second position, an operating member mounted for pivotal movement relative to the casing, said operating member being coupled to said slider whereby during pivotal movement of the operating member from a first angular position to a second angular position said slider is moved from said first position to said operative, second position, a cam surface on the casing, a cam follower member carried by the slider, and resilient means urging the cam follower member into engagement with said cam surface the arrangement of said cam surface being such that during sliding movement of the slider from said first position to said operative, second position the cam follower member is moved by said cam surface against the action of said resilient means whereby said resilient means urges said slider from said operative, second position back towards said first position and urges said operating member from said second position to said first position.

CLASS 63-H. 134384.

## A METHOD OF MANUFACTURING A FERRITE MAGNET.

JOSEPH LUCAS (INDUSTRIES) LIMITED, OF GREAT KING STREET, BIRMINGHAM, 19, ENGLAND.

Application No. 134384 filed January 25, 1972.

Convention Date January 26 1971 (3146/71) U.K.

## 19 Claims.—No drawings.

A method of manufacturing a ferrite magnet, the method comprising the step of starting with a ferrite magnet material and, prior to pressing in a magnetic field mixing the ferrite magnet material with a fibrous material.

CLASS 206-E. 134465.

## SEMICONDUCTOR DEVICE.

N. V. PHILIPS GOEILAMPENFABRIEKEN, AT AMMASINGEL 29, EINDHOVEN (HOLLAND).

Application No. 134465 filed February 1, 1972.

## 4 Claims.

A semiconductor device having conductors formed from metal strips, a crystal provided on one of the conductors, and comprising an integrated circuit, electrically conductive connections from the crystal to the conductors and an insulating envelope of a synthetic material in which the integrated circuit, the conductive connections and a part of the conductors are incorporated, the envelope conductors being located substantially in one plane, the semiconductor device comprising a cooling element which is secured opposite to the crystal to the conductor supporting the crystal, the further part of the cooling element extending beyond the plane in which the conductors are located, the envelope of synthetic material being provided by a moulding process, characterized in that the cooling element (29) comprises slots (31) for passing the enveloping synthetic material.

CLASS 150-E and G. 134494

## A METHOD TO FUSE TOGETHER TWO TUBULAR PIECES OF A THERMOPLASTIC MATERIAL AND AN APPARATUS TO CARRY IT OUT.

HOMI RUSTOMJI VAKIL, AT FLAT NO. 27, MAISON BELVEDERE, 107 MAHARSHI KARVE ROAD, BOMBAY-20, STATE OF MAHARASHTRA, INDIA.

Application No. 134494 filed February 4, 1972.

*5 Claims.*

An apparatus to fuse together two tubular pieces of a thermoplastic material comprising two cylindrical metal dies of unequal diameters, each coated with a nonsticking composition, the die with the lesser diameter to hold removably the tubular piece of greater diameter externally to itself and the die with the greater diameter to hold removably the tubular piece of the lesser diameter internally to itself, the two dies sandwiching between themselves an electric heater element encased in a metal housing and a chamber provided with air-holes located at the bottom thereof.

CLASS 71-B.

134527.

CUTTING TOOL-SHOVEL.

AMITAVE GHOSH DASTIDAR, OF 23-C, FERN ROAD, CALCUTTA-19, WEST BENGAL, INDIA.

Application No. 134527 filed February 8, 1972.

Division of Application No. 131024 filed 19th April 1971.

*7 Claims.*

A shovel for cutting narrow trenches comprising a shovel member of desired width having side walls set back from its cutting and/or collecting edge, and a tubular member at the rear end of the shovel member, upper end of the tubular member being adapted to be associated with suction means.

CLASS 270.

134526.

JOINING DIAPHRAGM WALLS.

AMITAVA GHOSH DASTIDAR, OF 23-C, FERN ROAD, CALCUTTA-19, WEST BENGAL, INDIA.

Application No. 134526 filed February 8, 1972.

Division of Application No. 131024, filed 19th April 1971.

*10 Claims*

A joint for joining two wall units or panels comprising opposing male and female locking units each of which comprises C-sectioned tubular member on the connecting edges of walls or panels, one of the tubular members being of a diameter less than that of the other to enable one to slide into the other of an adjacent wall unit for locking purposes and adapted to be rotatable therein to permit the two panels or wall units to be adjusted for connection at any desired angle to each other, the joint being completed as a monolithic joint by impervious chemicals or cement slurry/mortar/concrete, soil slurry, bentonite slurry or soil/bentonite slurry filled in the spaces between the two locking units.

CLASS 71-E.

134528.

CUTTING TOOL—GRAB SCISSORS.

AMITAVA GHOSH DASTIDAR, OF 23-C, FERN ROAD, CALCUTTA-19, WEST BENGAL, INDIA.

Application No. 134528 filed February 8, 1972.

Division of Application No. 131024, filed 19th April 1971.

*6 Claims*

A tool for cutting narrow trenches being a grab scissors comprising a plier like means with a channel member mounted or integrally formed on each limb, each channel member being in a plane substantially parallel to the planes of the limbs in closed position, edges or banks of the channel members being serrated or having teeth formed thereon.

CLASS 127-F.

134574.

AN IMPROVED FRICTION DRIVE TO ENHANCE MECHANICAL ADVANTAGE.

RAGHUNATH KARBHARI WAGH, B.E. (MECH-ELECT.), 21, APURVA, CHEMBUR NAKA, BOMBAY-71, MAHARASHTRA STATE, INDIA.

Application No. 134574 filed February 10, 1972.

*2 Claims*

An improved friction drive comprising main friction gear and a pinion assembly, the surfaces of the said main gear and the pinion being provided with circumferentially running plurality of grooves having an apex angle between 15 degrees to 40 degrees, the said circumferentially running plurality of grooves on the said main friction gear and the pinion afford increased contact area.

CLASS 140-B-2 & 3, 83-A-4.

135091.

METHOD FOR SEPARATION OF EMULSION FORMED IN MICROBIOLOGICAL DEWAXING OF PETROLEUM FRACTIONS HAVING DISTILLATION RANGE FROM 230 TO 450°C.

ORSKY NEFTEPERERABATYVAJUSCHY ZAVOD IMENI CHKALOVA, OF ORSK, U.S.S.R.

Application No. 135091 filed March 28, 1972.

*3 Claims*

A method for separation of an emulsion formed in the microbiological dewaxing of petroleum fraction having the distillation range from 230 to 450°C which contains an aqueous mineral medium, dewaxed product, and yeast, characterized in that the said emulsion is treated with a 2.5 per cent aqueous ammonia-soda solution having the ammonia to soda ratio (by weight) of 1.4 : 4.1, the consumption of the said solution being 15-50 kg per ton of the said petroleum fractions; the said treatment of the emulsion is carried out at a temperature from 60 to 100°C; after treating the emulsion with the aqueous ammonia-soda solution, the mixture is allowed to settle.

CLASS 33-F.

135238.

METHOD OF PRODUCING FOUNDRY MOULDS AND CORES.

TSENTRALNY NAUCHNO-ISSLEDOVATELSKY INSTITUT TEKHNologii MASHINOSTROENIA, SHARIKOPODSHIPNIKOVSKAYA ULITSa 4, MOSCOW, USSR.

Application No. 135238 filed April 11, 1972.

*14 Claims—No drawings*

A method of producing foundry moulds and cores in which mold boxes or core boxes are filled up with self-hardening moulding sand as a filler, ligno sulphonate of an alkali, alkaliearth metal, ammonia or their mixture as described as a binder and a hardener and holding it for air hardening, characterized in that the hardener is a material containing aluminate of an alkali metal.

## CLASS 180.

135379.

## IMPROVEMENTS RELATING TO PRESSURELESS MULTI-WICK KEROSENE STOVES.

SARAB DEO SHARMA, 33-KARBALA TANK LANE, CALCUTTA-7, WEST BENGAL, INDIA.

Application No. 367/1972 filed May 31, 1972.

## 8 Claims

A device for shutting-off a wick stove of the kind comprising a cylindrical body, hereafter referred to as condenser, closed at one end open at the other, adapted to slide down or be pushed down around outer apertured cylinder of the stove to sit on wick platform, or up-turned edge thereof, or store body the closed end of the condenser forming a container with cylinder walls or having a false ceiling, i.e., being double walled, a material which is lead conductor or heat such as herein described, being sandwiched between said double walls, i.e., the false ceiling and the top, or just placed in the container.

CLASS 72-B.

135380.

## SLURRY EXPLOSIVE COMPOSITION.

IMPERIAL CHEMICAL INDUSTRIES LIMITED, OF IMPERIAL CHEMICAL HOUSE, MILIBANK, LONDON, S. W. 1., ENGLAND.

Application No. 69/72 filed April 28, 1972.

Convention Date May 3, 1971, (12734/71), U.K.

## 22 Claims—No drawings

A slurry explosive composition comprising at least one inorganic oxygen-supplying salt, a solvent for the said inorganic oxygen-supplying salt, a thickener for the solution of the said salt in the said solvent, a fuel and, as sensitizer, 0.1 to 5% by weight of the total composition of a heavy metal salt or oxide.

## Opposition Proceedings

Application for patent No. 125527 in respect of which an opposition was entered by Sharpedge Limited as notified in the Gazette of India, Part III, Section 2, dated 25th March, 1972 is treated as abandoned.

## Patents Sealed

116491 123675 125570 125800 125842 125923 126350  
126881 126897 127375 127633 127704 127734 128001  
128017 128438 128576 128722 128786 128861 128969  
129123 129266 129392 129433 129725 130009 130120  
130309 130631 130662 131055 131071 131458 131474  
131796 132161 133919.

## Amendment Proceedings Under Section 57

(1)

Notice is hereby given that Otto Alfred Becker, a citizen of the Federal Republic of Germany, of 59 Robert-Koch Strasse, 66 Saarbrücken 6, Federal Republic of Germany, have made an application under Section 57 of the Patents Act, 1970, for amendment of specification of their application for Patent No. 130372 for "Method of resistance welding of metal sheets". The amendments are stated to be by way of correction. The application for amendment and the proposed amendments can be inspected free of charge, at the Patent Office on any working day during usual office hours and copies of the same can be had on payment of usual copying charges. Any person interested in opposing the application for amendment may file a notice of opposition on the prescribed form 30, within three months from the date of this notification. If the written statement of opposition is not filed with the notice of opposition it shall be left within one month from the date of filing the said notice.

(2)

Notice is hereby given that Ciba-Geigy AG., a Swiss Corporation, of Klybeckstrasse 141, Basle, Switzerland, have made an application under Section 57 of the Patents Act, 1970 for amendment of specification of their application for Patent No. 129728 for "Process for the manufacture of new monoazo compounds". The amendments are stated to be by way of correction and disclaimer. The application for amendment and the proposed amendments can be inspected free of charge at the Patent Office on any working day during usual office hours and copies of the same can be had on payment of the usual copying charges. Any person interested in opposing the application for amendment may file a notice of opposition on the prescribed form 30, within three months from the date of this notification. If the written statement of opposition is not filed with the notice of opposition, it shall be left within one month from the date of filing the said notice.

## Registration of Assignments, Licences, Etc. (Patents)

Assignments, licences or other transactions affecting the interests of the original patentees have been registered in the following cases. The number of each case is followed by the names of the parties claiming interests :—

122568, 123527—National Research Development Corporation of India.

104765—M/s. Veb Delicia.

79234, 85161—M/s. H. T. Golde G.m.b.H.

107943, 116379—M/s. Unifoam A. G.

108146—Messrs Biyanis.

96153, 113700—M/s. The Standard Batteries Limited.

112744—M/s. Vari-Phase, Inc.

114162—M/s. Teledyne Mid-America Corporation.

85962, 99056—M/s. USM Corporation.

97783—M/s. Oxy Metal Finishing Corporation.

94026, 123949, 124025—M/s. Wean United, Inc.

## Patents Deemed to be Endorsed with the words "Licences of Right"

The following patents are deemed to have been endorsed with the words "Licences of right" under Section 87 of the Patents Act, 1970. The dates shown in the crescent brackets are the dates of the patents.

## No. &amp; Title of the invention

104083 (26-2-66) Process for the production of polyamides.

104124 (1-3-66) Production of sodium bicarbonate.

104184 (4-3-66) Process for improving the thermal stability of dimethyl terephthalate.

104252 (9-3-66) Basic azo dyestuffs and process for preparing them.

104667 (2-4-66) Method of synthesizing urea.

104672 (2-4-66) A process of producing vinyl chloride.

104675 (6-4-65) Process for the separation of a 4:4' bi-pyridylum salt from a solution containing it.

104692 (4-4-66) Plant morpho-regulating compositions.

104714 (5-4-66) Pigment and process of producing same.

104721 (7-4-65) Process for the manufacture of N:N'-disubstituted tetrahydro-4:4'-bipyridyls.

104726 (5-4-66) Process of lowering the sulphate contents of phosphoric acid.

104739 (5-4-66) Process and apparatus for preparing a powdered coffee extract, coffee extract prepared thereby, and compositions containing said coffee extract.



- 104753 (20-4-65) A process for the preparation of azines and/or isohydrazones.
- 104758 (23-4-65) Process for the manufacture of azines.
- 104760 (7-4-66) Process and apparatus for producing either ISAF or HAF carbon black.
- 104765 (7-4-66) Metal phosphide composition for pest control and tablets or compacts made therefrom.
- 104791 (17-11-65) Froth floatation for the recovery of minerals from ores.
- 104799 (12-4-66) A method for separating concentrated solution of electrolyte from viscous solution by dialysis and an apparatus therefor.
- 104815 (22-2-66) A process for the preparation of polymers.
- 104838 (13-4-66) Herbicidal compositions.
- 104844 (14-4-66) A process for the preparation of silver powder and a cement containing it.
- 104866 (16-4-66) Process for the preparation of polymers.
- 104868 (1-6-64) Herbicidal compositions.
- 104875 (18-4-66) Toilet composition and a method of making it.
- 104884 (18-4-66) Counter-current extraction process from fluid mixtures.
- 104892 (18-4-66) Process and ring nozzle for atomizing molten material.
- 104893 (18-4-66) Process for separating dissolved metal compounds from inorganic acids.
- 104904 (19-4-66) Process for the preparation of organoperoxyberanes, organoperoxyboranes produced thereby, their use in the oxidation of aromatic compounds having at least one nuclear hydrogen atom to phenolic compounds, and phenolic compounds produced thereby.
- 104911 (1-5-65) Copolymerization of alpha olefins.
- 104913 (19-4-66) New aryl-1, 3, 5-triazine derivatives, process for their manufacture and organic materials protected therewith.
- 104921 (20-4-66) Method of liquefying and regassifying a gas.
- 104923 (20-4-66) Catalytic cracking process.
- 104945 (14-4-66) Process for producing sulphonated cation exchangers.
- 104946 (21-4-66) Process of preparing a flavored protein product.
- 104953 (22-4-66) Improved process for the manufacture of aluminium base alloys.
- 104956 (22-4-66) Improved alkylation process.
- 104959 (6-12-63) Improvements in the production of yeasts from hydrocarbon.
- 104960 (6-12-63) Improvements in the production of yeasts from hydrocarbon.
- 104973 (25-4-66) Water-soluble metal-containing disazo dyestuffs, process for preparing them and textile fibrous materials dyed or printed by a process using said dyestuffs.
- 104974 (25-4-66) Purification of aqueous caustic solutions.
- 104983 (25-4-66) Process for the production of medium to low carbon ferromanganese of low silicon content.
- 104999 (25-4-66) Process for the preparation of synthetic crystalline aluminosilicates.
- 105007 (26-4-66) Composition and a process for treating steel with the composition.
- 105008 (26-4-66) Secondary recovery process for recovering crude petroleum.
- 105013 (5-11-65) A process for the production of organic esters.
- 105014 (5-4-66) A process for the production of organic esters.
- 105026 (27-4-66) Process for the manufacture of hydroxylamine sulfate solutions.
- 105027 (27-4-66) Process and apparatus for chemically reacting a gas with a liquid.
- 105035 (27-4-66) Crystalline cyclic organotin compounds and process for making the same and halogen containing resin compositions stabilized therewith.
- 105064 (13-5-65) Phenolic resins and a process for the preparation thereof.
- 105066 (29-4-66) Production of Rubbery polymers of conjugated dienes.
- 105068 (29-4-66) Process for the elimination of acrolein from acrylonitrile.
- 105075 (29-4-66) Catalytic cracking of hydrocarbons containing two to thirty carbon atoms.
- 105077 (16-7-65) Process for the spectral sensitisation of silver halide emulsions.
- 105081 (29-4-66) Chemical recovery of tin metal from the acid detinning bath.
- 105084 (16-12-65) A process for the chloromethylation and crosslinking of aromatic compounds of high molecular weight.
- 105090 (30-4-66) Reduction of iron ores.
- 105123 (4-5-66) Process for producing polymer composition.
- 105136 (4-5-66) Polymerization of ethylene.
- 105139 (4-5-66) Process for preparing expandable plastic particles.
- 105150 (5-5-66) Preparation of sulfo esters of  $\alpha$ -methylene carboxylic acids.
- 105162 (5-5-66) Azo dyes, a process for their production and textile materials dyed, padded or printed therewith.
- 105175 (6-5-66) Process for preparing ammonium nitrate.
- 105186 (7-5-66) Guanamines and polymers thereof, and preparation of such polymers.
- 105190 (7-5-66) A process for the recovery of anhydrous lanolin of B.P. and U.S.P. quality from crude wool fat.
- 105216 (11-5-66) A process for bleaching cellulosic pulp.
- 105217 (11-5-66) A process for removing colouring matter from cellulosic pulp.
- 105218 (11-5-66) A process for removing colouring matter such as ink from cellulosic pulp.
- 105225 (11-5-66) Process for improving the resistance of ethylene sulphide polymers.
- 105228 (11-5-66) Improved polymerization process.
- 105229 (11-5-66) Process and apparatus for paring the skin from a heap or mass of cereal or leaf crop.



- 105230 (11-5-66) Method for making pulp plastic composition and articles formed therefrom.
- 105234 (9-12-65) Insecticidal compositions.
- 105256 (13-5-66) Apparatus and process for the preparation of detergent compositions.
- 105259 (13-5-66) Process and apparatus for drying a product suspended in a liquid.
- 105270 (16-5-66) Process for the production of melamine.
- 105273 (1-6-65) Process for preparing dispersible compositions.
- 105274 (1-6-65) Process for the preparation of azoacetylacetamides and dispersible compositions and pigments containing the same.
- 105284 (16-5-66) Aminonitroalkanes, process for preparing them and pesticidal compositions containing the same.
- 105294 (17-5-66) Purification of aromatic polycarboxylic acids and the aromatic polycarboxylic acids so purified.
- 105295 (17-5-66) Process for purifying aromatic polycarboxylic acids and the aromatic polycarboxylic acids so purified.
- 105296 (17-5-66) Process and apparatus for the purification of polycarboxylic acid and the acids so produced.
- 105297 (17-5-66) Treatment of palladium catalysts with hot formic acid to control their activity and catalysts so treated.
- 105299 (17-5-66) Method for the production of gilsonite salts, the compounds so prepared and plant growth regulating compositions containing them.
- 105304 (17-5-66) Process for the manufacture of polyurethane foams.
- 105314 (17-5-66) A method for treating rubber.
- 105319 (17-5-66) Process for the production of perborates.
- 105339 (18-5-66) Preparation of solid metal soaps.
- 105358 (19-5-66) Process and apparatus for the chromatographic separation of gaseous mixtures.
- 105361 (19-5-66) Production of vinyl chloride-ethylene or propylene copolymers.
- 105378 (20-5-66) Production of N : N'-disubstituted bipyridylum salts.
- 105389 (21-5-66) Process for making strontium bearing ferrosilicon.
- 105397 (28-5-65) Production of bipyridylum salts.
- 105398 (2-6-65) Process for the preparation of polyolefin composition.
- 105401 (23-5-66) Mono-and dithiophosphoric acid esters and process for their preparation.
- 105403 (23-5-66) Insecticidal composition containing 2' 5-dichloro-4'-nitrosalicylanilides.
- 105413 (24-5-66) Hydrocracking process.
- 105430 (25-5-66) Improvements relating to cooking fats.
- 105434 (25-5-66) Bromine production.
- 105448 (25-5-66) Agent for controlling weed grasses of the cyperus family in sugar cane plantations.

**Renewal Fees Paid**

64247	64344	64386	64695	65089	67942	67972	67995
68041	68338	68382	68409	68488	68736	69260	72076
72111	72135	72176	72243	72647	72648	72787	72788
72950	73464	73821	76999	77009	77035	77083	77106
77118	77126	77165	77341	77348	77353	77592	77887
77891	78455	79583	79893	82561	82616	82640	82663
82678	82696	82722	82728	82745	82753	82838	82876
82889	82952	83003	83004	83350	83376	83850	83851
83865	84127	85621	87905	88093	88293	88316	88359
88375	88385	88482	88483	88536	88580	88623	88956
89185	89469	90066	93573	93920	94041	94077	94195
94196	94232	94234	94237	94256	94275	94279	94280
94314	94336	94388	94403	94479	94699	94982	95138
96582	97625	98264	98774	99724	99780	99905	99906
99933	99940	99957	99970	100022	100023	100024	
100034	100052	100053	100054	100058	100086	100127	
100282	100679	101012	101056	101164	103490	105584	
105613	105624	105629	105632	105646	105652		
105655	105672	105673	105681	105727	105728	105730	
105756	105849	105863	105885	105897	105907	105941	
105968	106004	106258	106363	106381	106405	106424	
106600	106761	106809	107852	110516	110988	110993	
111010	111095	111096	111098	111119	111130	111131	
111132	111145	111152	111198	111206	111226	111242	
111250	111264	111281	111301	111331	111599	111769	
112042	115369	116021	116072	116076	116080	116193	
116242	116249	116293	116296	116301	116309	116310	
116313	116327	116328	116367	116372	116462	116516	
116522	116549	116553	116643	116662	116723	116984	
117031	117071	117072	117212	117259	117288	117312	
117313	117332	117869	117956	121170	121293	121575	
121618	121641	121693	121704	121718	121742	121743	
121756	121771	121775	121785	121833	121834	121835	
121836	121837	121889	121909	121926	122042	122091	
122247	122263	122272	122276	122295	122331	122515	
122991	123598	126029	126030	126267	126294	126808	
126825	126976	127049	127085	127158	127248	127707	
127968	128455	128456	128457	128949	129516	129735	
129737	130574	130829	131786	133048	133049		

**Registration of Designs**

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Designs Act, 1911.

The date shown in each entry is the date of registration of the design included in the entry.

NIL.

**Copyright Extended for a Second Period of Five Years**

Design Nos. 131732, 131826 Class—1.

**Copyright Extended for a Third Period of Five Years**

Design Nos. 117708 to 117712 Class—1.

S. VEDARAMAN,  
Controller General of Patents,  
Designs and Trade Marks

